

AMENDMENTS TO THE ABSTRACT:

Please amend the Abstract as follows:

ABSTRACT OF THE DISCLOSURE

A wireless communication receiver (20) comprises a joint searcher and channel estimator (24) which provides a channel estimate which can take into consideration a doppler shift occasioned, e.g., by relative movement of a transmitter and the receiver or movement of a signal path-affecting object. In providing the channel estimate, the joint searcher and channel estimator essentially concurrently considers plural signals received by an antenna element of an array (22), the plural signals being obtained from a series of successive sets of pilot data as detected by the antenna element. The time of arrival and the channel coefficient are essentially concurrently determined by the joint searcher and channel estimator. The joint searcher and channel estimator applies the channel coefficient and the time of arrival to a detector which provides, e.g., a symbol estimate.

The joint searcher and channel estimator is a two-dimensional unit, with a first dimension being referenced by a time index of the sampling window employed for each of the sets of pilot data (i.e., a sampling window time index) and a second dimension being a temporal dimension imparted by the time interval reflected by the successive sets of pilot data. The temporal joint searcher and channel estimator may take differing embodiments and have differing implementations. In one example, illustrative embodiment the temporal joint searcher and channel estimator includes a non-parametric type correlator (e.g., a correlator which performs a Fast Fourier Transform (FFT) calculation). In another example, illustrative embodiment the temporal joint searcher and channel estimator utilizes a parametric approach.